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(71) Applicant (for all designated States except US): **KANTO DENKA KOGYO CO. LTD.** [JP/JP]; 2-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 1000005 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **IINUMA, Hidehiko** [JP/JP]; c/o Metairials for Recording Media Lab., Kanto Denka Kogyo Co., Ltd., 425, Kanai, Shibukawa-shi, Gunma 3370027 (JP). **HARA, Kenkichi** [JP/JP]; c/o Shibukawa Laboratory, Kanto Denka Kogyo Co., Ltd., 1497, Shibukawa-shi, Gunma 3778513 (JP). **HAYASHI, Masatomo** [JP/JP]; c/o Metairials for Recording Media Lab., Kanto Denka Kogyo Co., Ltd., 425, Kanai, Shibukawa-shi, Gunma 3370027 (JP).

(74) Agent: **OKIMOTO, Kazuaki**; Yuasa and Hara, Section 206, New Ohtemachi Bldg., 2-1, Ohtemachi 2-chome, Chiyoda-ku, Tokyo 1000004 (JP).

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(54) Title: A MG-BASED FERRITE, AN ELECTROPHOTOGRAPHIC DEVELOPMENT CARRIER CONTAINING THE FERRITE, AND A DEVELOPER CONTAINING THE CARRIER

(57) Abstract: This invention provides an Mg-based ferrite carrier composed of an environment-friendly material meeting environmental regulations, and an electrophotographic developer comprising the carrier. The carrier and the developer of this invention realize high image quality and improved gradation properties. This invention also provides a method for producing the Mg-based ferrite material having a saturation magnetization of from 30 to 80 emu/g and a dielectric breakdown voltage of from 1.0 to 5.0 kV, and having the composition of the formula (1). The above properties are obtained by controlling conditions of sintering and heating treatments. $\text{Ca}a\text{MgbFecOd}$ (1) wherein a, b, and c satisfy $0.10 \leq b/(b+c/2) \leq 0.85$ and $0 \leq R(\text{Ca}) \leq 0.10$; $R(\text{Ca})$ is expressed as $R(\text{Ca}) = a$ numbers of Ca, Mg and Fe.

WO 2004/088680 A3

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Gols, J

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